

ABSTRACT

Cooling/heating system of air conditioner including a duct having a first passage for drawing external air, and a second passage for drawing room air, the second passage having a part crossed with the first passage, a regenerative heat exchanger having first and second flow passages in the crossed part of the first and second passages for indirect heat exchange between the external air and the room air, a case connected to the first and second passages of the duct having first and second outlets for drawing/discharging external and room air, first and second fans for drawing in the external air and the room air into the case through the first and second passages, and discharging the external air and the room air through the first and second outlets, and first and second heat exchangers for heat exchange with the external air and the room air discharge through the first and second outlets, thereby preventing contamination and dried room air and reducing heat loss to permit cooling/heating even with small amount of energy.